

Open-Response

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10 Fabric Purchase

Two companies sell fabric online. The total cost, C , in dollars, for n metres of fabric for each company is given below.

• Fabric Fun: $C = 4.25n + 3.00$

• Sew-a-Lot: $C = 6.50n$

Complete the chart below by determining the initial value, rate of change and type of variation for the relationship for each company.

Justify the type of variation you have selected.

Fabric Fun	Sew-a-Lot
Initial value: _____	Initial value: _____
Rate of change: _____	Rate of change: _____
Type of variation Circle one: Partial Direct	Type of variation Circle one: Partial Direct
Justification	Justification

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8 Related Relations

A new line

- is perpendicular to the line represented by $3x - y = 5$ and
- has the same y-intercept as the line represented by $4x - 3y - 12 = 0$.

Determine the equation of the new line.

Justify your answer.

The equation of the new line is _____.